



# California Renewable Electricity Standard

## Climate Action Team Meeting December 3, 2009

# Executive Order S-21-09

- Adopt regulation for 33% renewable energy target
- Use AB 32 authority
- Build upon existing RPS program
- Regulate all California load serving entities
- Priority for resources that provide the greatest environmental benefit... developed quickly and support reliable, efficient, and cost-effective system operation... through the Western Interconnection



# Regulation Development Schedule

- **December 2009** – Draft regulatory language and preliminary technical analysis
- **January 2010** – Draft economic & environmental analyses, and operational reliability modeling
- **February 2010** – Revised regulatory language and staff report
- **March 2010** – Peer review of draft proposal
- **June 7, 2010** – Proposed regulation and staff report
- **July 22-23, 2010** – ARB Board Hearing



# October 30, 2009 Workshop

- Described Purpose & Authority for RES Regulation
- Outlined RES Rulemaking Schedule & Procedures
- Introduced RES Regulatory Concept Outline



# December 14, 2009 Workshop

- Discuss Analyses Approaches for RES Regulation
  - Economic
  - Environmental
  - Technical Feasibility
- Discuss ISO/PUC/CEC Modeling



# Proposed RES Regulatory Concepts

## RES Applicability

- Applies to electrical corporations, electricity service providers, community choice aggregators, electrical cooperatives, & local publicly owned electric utilities
- Effective January 1, 2012, and operate independently of California's RPS program
- Build upon and complement existing RPS program



# Proposed RES Regulatory Concepts

## Eligible Resources

- Incremental hydroelectric generation from efficiency improvements
  - Fuel cells using renewable fuels
  - Conduit hydroelectricity
  - Municipal solid waste
  - Small hydroelectric
  - Solar photovoltaic
  - Ocean thermal
  - Solar thermal
  - Tidal current
  - Digester gas
  - Ocean wave
  - Geothermal
  - Landfill gas
  - Biodiesel
  - Biomass
  - Wind
- Staff may evaluate other technologies and current limitations on RPS eligible resources



# Proposed RES Regulatory Concepts

## RES Compliance Approach

- Based on verification of load served
- Basic measurement unit is MWh of electricity
- Potential MWh conversion to a GHG metric
- May create RES “compliance credits” based on “RECs”
- Credits may be traded or used for future compliance
- Annual or periodic compliance targets





# Proposed RES Regulatory Concepts

## Monitoring & Verification Issues

- Regulated Parties
- Agency Administration
- RES Implementation Guidelines
- Potential Roles



# Proposed RES Regulatory Concepts

## Compliance & Enforcement

- Compliance Requirements
- Compliance Determinations
- Enforcement Approach
- Penalties for Non-Compliance
- RES Procurement Planning
- Periodic Review



# Public Outreach Efforts

- Public workshops will be held every 6-8 weeks
- ARB holding meetings with stakeholders
- All interested parties are invited to comment
- Written comments will be posted on-line

